This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A method of diagnosing multiple sclerosis in a subject, the method comprising

providing a test sample from a subject; detecting in said test sample an anti-Glc (α 1-4) Glc (α) IgM type antibody; and

comparing the levels of said antibody in said test sample to the levels of said antibody in a normal control sample, ~~wherein a similar level of said antibody in said test sample compared to the level of said antibody in a control sample obtained from the group consisting of one or more individuals that have multiple sclerosis symptoms and have a known multiple sclerosis status is indicative of multiple sclerosis, and~~ wherein a higher level of said antibody in said test sample compared to the level of said antibody in a normal control sample ~~obtained from one or more individuals that do not show multiple sclerosis symptoms~~ is indicative of multiple sclerosis,

thereby diagnosing multiple sclerosis in said subject, wherein said diagnosis is after a first neurological attack and prior to a second neurological attack.

2. (Currently Amended) The method of claim 1, wherein said method further comprises

detecting a second antibody, wherein said second antibody is ~~selected from the group consisting of~~ an anti-Glc (α)IgM type antibody, ~~an anti-Glc (α 1-4) Glc (β) IgM type antibody, , an anti-Gal (β) IgA type antibody; an anti-Glc (β 1-4) Glc (β 1-4) Glc (β) IgM type antibody, an anti-GlcNAc (β 1-4) GlcNAc (β) IgA type antibody, an anti-L-Araf (α) IgM type antibody, an anti-L-Rha (α) IgM type antibody, an anti-GlcNAc(α) IgM type antibody, an anti-Gal (β1-3) [GlcNAc (β1-6)] GalNAc (α) IgM type antibody, an anti-Gal (β 1-4) GlcNAc (α) IgM type antibody, an anti-Gal (β 1-3) GalNAc (α) IgM type antibody, an anti-Gal (β 1-3) GlcNAc (β) IgM type antibody, an anti-GlcA (α) IgM type antibody, an anti-GlcA (β) IgM type antibody, and an anti-Xyl (α) IgM type antibody ;~~ and

comparing the levels of the second antibody in said test sample to the levels of the second antibody in a normal control sample, ~~wherein a similar level of said antibody in said test sample~~

~~compared to the level of said antibody in a control sample obtained from the group consisting of one or more individuals that have multiple sclerosis symptoms and have a known multiple sclerosis status is indicative of multiple sclerosis, and~~ wherein a higher level of said antibody in said test sample compared to the level of said antibody in a normal control sample ~~obtained from one or more individuals that do not show multiple sclerosis symptoms~~ is indicative of multiple sclerosis;

thereby diagnosing multiple sclerosis in said subject.

3. (Cancelled)

4. (Previously presented) The method of claim 1, wherein said control sample is obtained from a population of one or more individuals that do not show multiple sclerosis symptoms .

5. (Canceled)

6. (Previously Presented) The method of claim 1, wherein said test sample is a biological fluid.

7. (Previously Presented) The method of claim 6, wherein said biological fluid is whole blood, serum, plasma, spinal cord fluid, urine, or saliva.

8. (Currently amended) The method of claim [[1]]6, wherein said biological fluid is serum.

9. (Previously Presented) The method of claim 1, wherein said subject is a female.

10. (Previously Presented) The method of claim 1, wherein said subject is a male.

Claims 11-15 (Cancelled).

16. (Cancelled)

17. (Currently amended) The method of claim 1, wherein said normal control sample is obtained from a group consisting of one or more individuals, wherein said group consisting of one or more individuals is determined using an Expanded Disability Status Scale (EDSS) assessment or a Magnetic Resonance Imaging (MRI) assessment.

18. (Currently amended) The method of claim 1, wherein said normal control sample is obtained from a group consisting of one or more individuals, wherein said group consisting of one or more individuals is determined using an Expanded Disability Status Scale (EDSS) assessment.

19.-59. (Canceled)

60. (New) A method of diagnosing multiple sclerosis in a subject, the method comprising

providing a test sample from a subject; detecting in said test sample an anti-Glc (α 1-4) Glc (α) IgM type antibody; and

comparing the levels of said antibody in said test sample to the levels of said antibody in a normal control sample, wherein a higher level of said antibody in said test sample compared to the level of said antibody in a normal control sample is indicative of multiple sclerosis,

thereby diagnosing multiple sclerosis in said subject, wherein said diagnosis is after a first neurological attack and prior to progression to relapsing-remitting episodes of worsening neurological function.

61. (New) The method of claim 60, wherein said method further comprises

detecting a second antibody, wherein said second antibody is an anti-Glc (α) IgM type antibody, and

comparing the levels of the second antibody in said test sample to the levels of the second antibody in a normal control sample,

wherein a higher level of said antibody in said test sample compared to the level of said antibody in a normal control sample is indicative of multiple sclerosis;

thereby diagnosing multiple sclerosis in said subject.

62. (New) The method of claim 60, wherein said control sample is obtained from a population of one or more individuals that do not show multiple sclerosis symptoms .

63. (New) The method of claim 60, wherein said test sample is a biological fluid.

64. (New) The method of claim 63, wherein said biological fluid is whole blood, serum, plasma, spinal cord fluid, urine, or saliva.

65. (New) The method of claim 64, wherein said biological fluid is serum.

66. (New) The method of claim 60, wherein said subject is a female.

67. (|New) The method of claim 60, wherein said subject is a male.

68. (New) The method of claim 60, wherein said normal control sample is obtained from a group consisting of one or more individuals, wherein said group consisting of one or more individuals is determined using an Expanded Disability Status Scale (EDSS) assessment or a Magnetic Resonance Imaging (MRI) assessment.

69. (New) The method of claim 60, wherein said normal control sample is obtained from a group consisting of one or more individuals, wherein said group consisting of one or more individuals is determined using an Expanded Disability Status Scale (EDSS) assessment.